

IN THE CLAIMS:

Amendments to the Claims

Please amend claims 1-3, 7 and 8 as shown below:

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A plasma processing apparatus to provide plasma processing of a substrate by plasma, said plasma processing apparatus comprising a plasma processing gas supply means, an exhaust means in a plasma process chamber, and a plasma generating means, said plasma generating means further comprises:

a capacitatively coupled discharge means consisting of mutually isolated multiple conductors,

an electromagnetic wave radiating means to cause radio frequency displacement current to flow between said conductors and to emit electromagnetic wave, and

a magnetic field forming means;

wherein said electromagnetic wave radiating means further comprises a radiated electromagnetic wave power control means to control the radiated electromagnetic wave power through radio frequency displacement current control means forming an LC resonant circuit, said radiated electromagnetic wave power control means including a distribution controller connected to a matching box and a high frequency power supply which provide said radio frequency displacement current to said LC resonant circuit; and

wherein said distribution controller controls said radiated electromagnetic wave power ~~is controlled by~~ controlling said radio frequency displacement current flowing to said LC resonant circuit.

2. (currently amended) A plasma processing apparatus to provide plasma processing of a substrate by plasma, comprising :

a capacitatively coupled discharge means consisting of mutually isolated multiple conductors; and

an electromagnetic wave radiating means to cause radio frequency displacement current to flow between said conductors and to emit electromagnetic wave;

wherein said electromagnetic wave radiating means further comprises a radiated electromagnetic wave power control means to control radiated electromagnetic wave power using the radio frequency displacement current control means forming an LC resonant circuit, said radiated electromagnetic wave power control means including a distribution controller connected to a matching box and a high frequency power supply which provide said radio frequency displacement current to said LC resonant circuit; and

wherein said distribution controller controls said radiated electromagnetic wave power ~~is controlled by~~ controlling said radio frequency displacement current flowing to said LC resonant circuit.

3. (currently amended) A plasma processing apparatus according to Claim 1 or 2 further characterized by a means to store a processing procedure to control distribution during plasma processing and ~~a means to control~~ said distribution controller controls plasma distribution during plasma processing according to the processing procedure stored in said store means.

Claims 4-6 (canceled)

7. (currently amended) A plasma processing apparatus ~~to provide plasma processing of a substrate by plasma, comprising:~~
~~a plasma processing gas supply means,~~
~~an exhaust means in a plasma process chamber,~~
~~a plasma generating means, and~~ according to claim 1, further comprising a
means to send RF current to the substrate to be processed, wherein said plasma processing apparatus further includes a RF bias circuit which is separated from ground so as to send RF current to the substrate to be processed .

8. (currently amended) A plasma processing apparatus ~~to provide plasma processing of a substrate by plasma, comprising:~~
~~a plasma processing gas supply means,~~
~~an exhaust means in a plasma process chamber,~~
~~a plasma generating means,~~ according to claim 1, further comprising a
means to process plasma using the generated plasma, wherein said means to process plasma enables sending of RF current to the substrate to be processed and includes multiple RF current conducting means installed at a position opposite to a position where the substrate to be processed is mounted, said multiple RF current conducting means being provided with a means to control a ratio of RF current flowing from the substrate to be processed to each of said multiple RF current conducting means.